

Galena Creek Visitor Center
At-Home Learning Activity Lesson Plan Base

Compost in a Bottle

via Busy Mommy Media



The Compost in a Bottle activity is a great way for kids to learn about the process of decomposition and how waste is handled in nature. This activity involves some outdoor components that can be done in a backyard or neighborhood, but most of it can be done indoors; you likely have all the materials already. This activity is great for grades 1-4 and involves little parent involvement. Students will learn about STEM subjects like biology and chemistry.

Objective: The objective of the Compost in a Bottle activity is for kids to construct their own compost system and monitor the process of decomposition. At the end of this activity, kids will have a functioning compost system and will understand how decomposition works.

Discipline or Subject Covered: STEM topics like biology and chemistry, environmental engineering

Grade Level: This project is great for grades 1-4

Materials:

- Empty 2 Liter Soda Bottle
- Soil
- leaves, grass, newspaper, spoiled produce, and anything else you can find in your home or yard that can be composted

Procedure:

1. Cut the top off a 2 liter soda bottle and rinse it out well. Remove the label so that you can see everything inside the bottle well.
2. Start with a layer of soil on the bottom and alternate between soil and compostable material. You can use just about any plant matter. We had some peas that were getting mushy in our fridge so we threw those in with some dead leaves, grass, and pine cones. Shredded newspapers would have been great in here too.
3. When your soda bottle has been filled, add water so it can start composting. You don't want it to be sitting in water but you do want it to be damp all the way through.
4. Let your compost sit for several weeks in a spot where it will get plenty of sunlight and won't be tipped over. Watch as the material that you have added to your soda bottle compost bottle changes over time.



5. Have the kids keep a record of the changes by taking photos or drawing pictures of what is happening in a science notebook. Note changes in smell, what's decomposing and what's not decomposing, and how much water you add.

Discussion:

Discussion Questions:

- What items decompose first?
- What does the compost smell like and how does the smell change?
- Are there materials that don't decompose? Why do you think they don't decompose?
- How do you think water plays a role in decomposition?



Further Projects/Activities:

If you have a garden or plants in your yard, use your compost on the plants to add nutrients to the soil. Try adding the compost to half of the individuals of each crop and monitor which individuals grow more, the ones with compost or without.

Other Resources/Further Information:

Watch this video on [decomposition](#) for kids.

[Learn more](#) about composting and find more compost activities for kids.